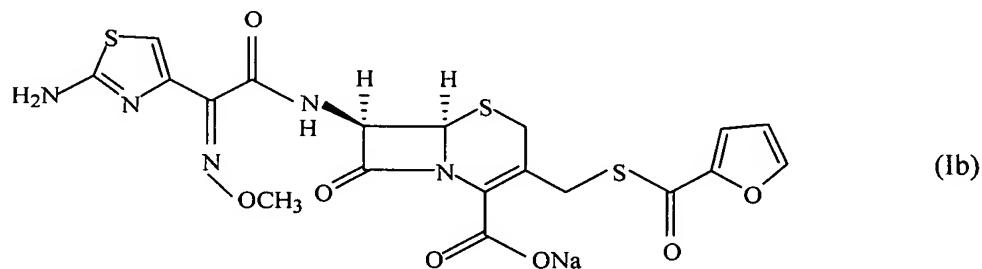
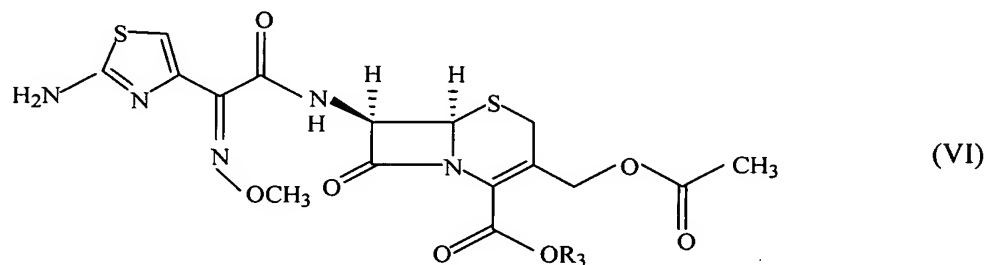


## IN THE CLAIMS

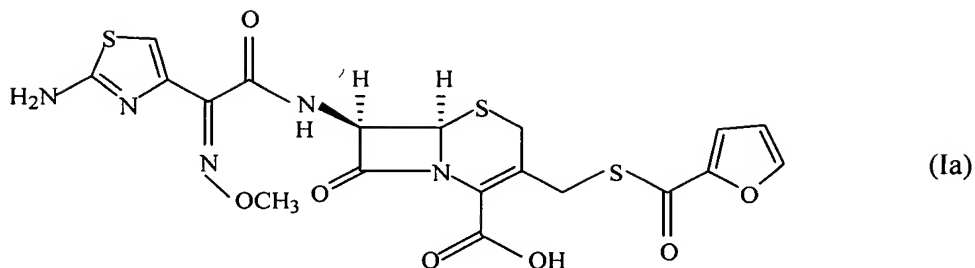
1. (Previously Presented) A process for preparation of ceftiofur sodium of formula (Ib) having purity of more than 97% comprising the steps of:



- i) reacting cefotaxime or its salts or its esters of formula (VI)



wherein  $R_3$  is hydrogen, an alkali or alkaline earth metal, or an ester hydrolysable under the conditions of step i), with thiofuroic acid, employed in a molar proportion of 1.5 to 3.0 moles per mole of compound (VI), in the presence of acetonitrile as solvent and in the presence of methanesulfonic acid, employed in molar proportions of 12 to 18 moles per mole of compound (VI), and at a temperature of between  $-5^{\circ}\text{C}$  to  $30^{\circ}\text{C}$  to give after necessary neutralisation of the alkali or alkaline earth metal or removal of the ester group of the 4-carboxylic acid function, wherever applicable, ceftiofur of formula (Ia), having purity of more than 97%;



- ii) converting the ceftiofur of formula (Ia) to its salt with an organic amine by treating a solution of ceftiofur in a mixture of water and a water-miscible organic solvent with an organic amine, at a temperature ranging from  $-10^{\circ}\text{C}$  to  $10^{\circ}\text{C}$ ;
- iii) reacting the amine salt thus obtained with a sodium metal carrier in a mixture of water and water-miscible organic solvent and in presence of sodium hydrogen sulfite to give ceftiofur sodium of formula (Ib).

2. (Previously Presented) The process according to claim 1, wherein the temperature of step i) is between  $10^{\circ}\text{C}$  to  $30^{\circ}\text{C}$ .

3. (Previously Presented) The process according to claim 1, wherein the water-miscible organic solvent is selected from the group consisting of acetone, tetrahydrofuran, acetonitrile, methanol and ethanol.

4. (Previously Presented) The process according to claim 1, wherein the organic amine is selected from the group consisting of triethyl amine, diethylamine, cyclohexylamine, tertiary butyl amine and benzyl amine.

5. (Previously Presented) The process according to claim 4, wherein the organic amine is employed in molar proportions of 1.0 to 3.0 moles per mole of ceftiofur (Ia).

6. (Previously Presented) The process according to claim 1, wherein the sodium metal carrier is selected from the group consisting of sodium hydroxide, sodium carbonate,

sodium bicarbonate, sodium ethoxide, sodium acetate, sodium propionate, sodium 2-ethyl hexanoate, and sodium 2-ethylcaproate.

7. (Currently Amended) The process according to claim 1, wherein the ceftiofur sodium is 87% stable for 90 days at 40°C + 2°C.

8. (Previously Presented) The process according to claim 1, wherein the hydrolysable ester is selected from the group consisting of lower alkanoylalkyl esters; lower alkoxy carbonyloxyalkyl esters; alkoxymethyl esters, lower alkylaminomethylesters, benzylester and cyanomethylester.

9. (Previously Presented) The process according to claim 1, wherein the temperature of step i) is between 15°C to 30°C.

10. (Previously Presented) The process according to claim 4, wherein the organic amine is employed in molar proportions of 1.2 to 1.5 moles per mole of ceftiofur (Ia).